Application number 09/712,381   <u>PATENT</u>
Amendment dated 2/24/2004
Reply to office action mailed August 25, 2003

<u>REMARKS/ARGUMENTS</u>

After entry of this amendment, claims 1-24 will remain pending in this application. Claim 7 has been amended to correct a typographical oversight. No new claims have been added.

Claims 1-24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Deering, United States patent number 6,525,723. Reconsideration of this rejection and allowance of the pending claims in light of the following remarks and arguments is respectfully requested.

<u>Claim 1</u>

Claim 1 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Deering. But Deering does not teach each and every element of this claim. For example, claim 1 recites "<u>determining which of the plurality of sub-samples are covered</u> by the source pixel, and which of the plurality of sub-samples <u>are not covered</u> by the source pixel." Deering does not provide this feature.

The pending office action cites column 25, lines 3-15 of Deering as teaching this limitation. (See pending office action, page 2, paragraph 2.) But this passage teaches a method of weighting samples based on their coordinates relative to a center of a pixel to calculate a final pixel value. Specifically, <u>fixed regions</u> that surround a pixel's center are assigned weight values. Samples in the closest regions are more highly weighted, those further way are weighted less or discarded. (See Figure 14 of Deering.) A final pixel value is calculated by applying the weight values and averaging the samples.

This is not the same as <u>determining whether a subsample is covered by a source pixel</u> as required by the claim. A source pixel is not fixed relative to a pixel's center, rather it may move, for example, covering different sub-samples during different frames. It is because the source pixel may cover different sub-samples that the claim recites this determination.

The claim recites a method that, for example, is useful for determining a pixel value when a first image covers one or more sub-samples forming a pixel in a second image. For example, the specification of the pending application describes a situation where an image of a

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car is added to a current image that includes a pixel showing a part of a tree trunk. As the car reaches this pixel, it may cover some but not all of the pixel's sub-samples. Determining which sub-samples are covered by the car and which remain part of the tree trunk facilitates anti-aliasing in the resulting image. (See pending application, page 4, lines 20-22 and 28-33.)

The cited passage in Deering does not provide this same benefit. Rather, again, a number of samples are weighted according to their proximate location to a fixed location. From this, a final value is calculated. This does not provide the feature as recited in claim 1.

Also, claim 1 recites "filtering the sub-samples which are covered by the source pixel." Deering does not provide this feature. Rather, the cited passage describes filtering samples based on their relative location to the center of a pixel. This filtering is not done based on coverage as required by the claim.

Moreover, claim 1 further recites "blending the filtered sub-samples with the source pixel to create a blended sub-sample." Deering does not provide this feature.

The pending office action cites column 2, lines 35-40 as teaching this limitation. (See the pending office action, page 2, column 2.) But the recited passage is simply background for defining the term "blending." It does not disclose the limitation required by the claim, and certainly does not disclose the limitation in the context of the claimed method.

Claim 1 further recites "filtering the sub-samples which are not covered by the source pixel together with the blended sub-sample." Deering does not provide this feature.

The pending office action cites column 5, lines 1-5 as teaching this limitation. (See pending office action, page 2, paragraph 2.) But this passage appears to discuss filtering a first set of samples during a first frame and a second set of samples during a second frame as a method of reducing artifacts. The only apparent similarity to the recited limitation is that they both contain the word "filtering."

The pending office action appears to reject this claim on the basis that each of the acts recited in the claimed method have a term such as "filtering" or "blending" in common with

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a passage in the cited reference. The pending office action does not appear to state that the actual method is disclosed in the cited reference. This is akin to rejecting a method of making bread because a reference mentions wheat, water, yeast, and salt in various passages, without any teaching that they may be combined to make bread.

For at least these reasons, claim 1 should be allowed.

Claim 11

Claim 11 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Deering. But Deering does not teach each and every element of this claim. For example, claim 11 recites "a blender having an output, a first input, and a second input, the first input coupled to the first filter output." Deering does not provide this feature.

The pending office action cites Deering, column 2, lines 35-40 as teaching this limitation. (See pending office action, page 3, paragraph 8.) But again, this passage is simply background material describing blending in general terms. It does not begin to teach the claimed structure.

Also, claim 11 recites "a graphics pipeline having an output coupled to the second blender input." Deering does not teach this limitation.

The pending office action cites column 8, lines 65-67 as teaching this limitation. (See pending office action, page 3, paragraph 8.) But this passage only mentions a pipeline, not a pipeline coupled to a blender as required by the claim.

Claim 11 further recites "a second filter having a first input and a second input, the first input coupled to the second sub-sample memory output and the second input coupled to the blender output." Deering does not teach this.

The pending office action cites column 5, lines 1-5 as teaching this limitation. (See pending office action, page 4, first two lines.) But this passage only describes filtering a first set of samples during a first frame and a second set of samples during a second frame as a method of reducing artifacts, as mentioned above. It does not teach a second filter coupled as required by the claim.

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     For at least these reasons, claim 11 should be allowed.

<u>Other claims</u>

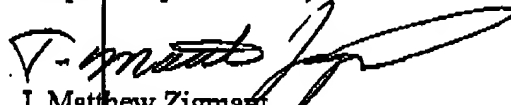   Claims 7 and 22 should be allowed for at least the same reasons as claim 1. Claim 17 should be allowed for at least the same reason as claim 11. The other pending claims depend on these claims, and should be allowed for at least similar reasons, and for the additional limitations they recite.

<div align="center"><u>CONCLUSION</u></div>

     In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance. The issuance of a formal notice of allowance at an early date is respectfully requested.

     If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-752-2456.

                           Respectfully submitted,

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